

May 16, 2002

Ms. Joanne Bissetta
Department of Environmental Protection
One Winter Street
Ninth Floor
Boston, MA 02108

Dear Ms. Bissetta,

Covanta Haverhill currently has a Mercury Product Material Separation Plan (MSP) that was approved by the Massachusetts Department of Environmental Protection (MDEP) on February 2, 2001. Subsequently, Covanta Haverhill requested and received approval for modification to the MSP by the Department on July 23, 2001.

In a letter dated September 21, 2001, the MDEP notified Mr. Ted Hoefler, Regional Vice President of Covanta Energy, that it had extended various dates of the Covanta Haverhill Material Separation Plan (MSP) that Covanta Haverhill was required to submit and implement pursuant to 310 CMR 7.08(2)(f)(7) and the Department's "Material Separation Plan Guidance for Municipal Waste Combustors". As a result of those various date changes, the Department noted in the September 21 letter that Covanta Haverhill needed to modify the existing Covanta MSP, extending it for six months, in order to meet and comply with the new dates and changes DEP made to the MSP schedule.

Consequently, on November 26, 2001, Covanta requested a modification to the MSP that extended the period during which the facility would implement its first MSP to June 30, 2002. Covanta received approval of the Application for Modification on January 16, 2002.

Enclosed, as per the Department of Environmental Protection revised Material Separation Plan Guidance for Municipal Waste Combustors, is the revised Covanta Haverhill MSP (MSP II). This revised MSP II replaces the original MSP II application dated March 28, 2002 and includes budgets, activities and timelines that reflect the additional 2 years of implementation as well as the modifications and clarifications that were discussed and/or requested at the meeting held at the MDEP offices on May 10, 2002.

If you have any questions regarding the revised MSP II, please contact Stephen Parker at Covanta Haverhill at 978-372-6288 or sparker@covantaenergy.com.

Sincerely,

Stephen Parker
MSP Program Coordinator
Covanta Haverhill

Covanta Haverhill, Inc.

Material Separation Plan for Mercury Containing Products

May 16, 2002

Purpose: Compliance with 310 CMR 7.08(2) Regulations Governing
Municipal Waste Combustors

Submitted to: Massachusetts Department of Environmental Protection
One Winter Street
9th Floor
Boston, Massachusetts 02108

Prepared by: Stephen Parker, Covanta Energy, Inc.
MSP Program Coordinator

Submitted By: Ted Hoefler, Regional Vice-President
Covanta Energy, Inc.
100 Recovery Way

I. Background and Purpose

In 1998, the Massachusetts Department of Environmental Protection's (MDEP or the Department) promulgated regulations 310 CMR 7.08 (2) governing municipal waste combustors (MWC's). Section 310 CMR 7.08(2)(f)(7) required MWC's to submit a material separation plan that describes actions the MWC will take for the removal of mercury-containing products from the waste stream. The plan must be developed in accordance with the MDEP's "Material Separation Plan Guidance Document".

Covanta Haverhill (formerly Ogden – Martin, Inc) developed a Material Separation Plan for the removal of mercury and mercury containing products and submitted the proposed Plan on October 31, 2000. The MDEP reviewed the Plan and issued final approval on February 2, 2001.

On April 24, 2001 Covanta Haverhill submitted a request for a modification to the MSP. Final approval of the modification request was granted on July 23, 2001.

In a letter dated September 21, 2001, Mr. James Colman, Assistant Commissioner, Bureau of Waste Prevention, notified Mr. Ted Hoefler, Regional Vice President of Covanta Energy, that the DEP was extending various dates related to the MSP in order to provide sufficient opportunity to implement the MSP and to allow for the results of the activities conducted in the first MSP to be utilized in developing the second MSP. The letter also noted that as a consequence of the various dates related to the MSP being changed, it would be necessary for Covanta Energy to modify their MSP (extend it for six months) in order for the facility to meet and comply with Department's new MSP schedule.

Consequently, on November 26, 2001, Covanta requested a modification to the MSP that extended the period during which the facility would implement its first MSP to June 30, 2002. Covanta received approval of the Application for Modification on January 16, 2002.

The following Material Separation Plan document (MSP II) is based on MDEP's "Material Separation Plan Guidance for Municipal Waste Combustors" issued on January 5, 2000 and modified on February 16, 2000 and June 29, 2001. This is the second MSP submittal and covers the 2-year period from July 1, 2002 through June 30, 2004.

II. OVERVIEW of the MSP II

A. Goals

The overall goals of the MSP II continue to be:

- Comply with applicable Massachusetts regulations
- Implement an program that builds on existing programs to the extent practicable

- Coordinate with other MSP programs being implemented to minimize redundancy and make the best use of the resources being spent on this mercury diversion effort
- Expand public awareness about mercury
- Divert mercury products from the solid waste stream
- Reduce the use of mercury-containing products
- Increase participation in mercury recycling/reduction programs

Please note that the MSP is only a planning document. Statements regarding projected diversions of mercury containing waste, budget categories and the like are provided in response to MDEP requests for estimates of anticipated program results. They are not intended to serve as enforceable commitments.

As recognized in the MDEP Guidance document, Covanta and other waste combustors do not have extensive experience in changing people's behaviors and encouraging participation in material separation plans. At this early stage in the process it is still not clear how the public-at-large, businesses and municipal/institutional waste generators are responding to the program. As the industry continues to gain experience through implementation of the program, development of numerical goals may become more feasible.

B. MSP Development Process

The following discussion summarizes the Plan development process and reviews stakeholder input from communities in the Covanta service area including recycling coordinators, use of outside consulting help, and research/modeling that was done.

As noted above, Covanta and other municipal waste combustors do not have extensive experience in changing people's behaviors to encourage participation in MSP's. Therefore, Covanta and a group of MWC vendors (collectively, "the MSP group") will continue to utilize its trade organization, the Integrated Waste Services Association (IWSA) to assist in the development of the public education and information campaign.

The IWSA is a national waste management trade association that includes Covanta, American-Refuel and Wheelabrator, among others. The public education effort as described is conditioned on all members of the MSP group providing adequate funding. The cost figures provided herein represent only Covanta's share of the public education effort based on a sharing formula agreed to by the MSP group. MDEP should be aware that if funding falls below the level anticipated because another MSP group member does not agree to fund at a certain level, then not all public education efforts may be completed as planned.

1. Coordination with MDEP

Starting with receipt of the MDEP Guidance in January 2000 and continuing for over two years, Covanta has participated in a series of informational and policy meetings with MDEP staff and management.

The MSP group, IWSA and MDEP have also met a number of times, both at MDEP's Boston offices and via conference calls. The MSP group has also met over the past two years independent of MDEP to evaluate how to coordinate programs and minimize redundancy, to facilitate access to mercury diversion programs and maximize commercial, institutional and public participation in programs.

MDEP has also provided Covanta and the MSP group with various informational documents related to mercury separation programs including lists of MDEP universal waste shed grants, contacts for local/regional environmental organizations and waste grants.

2. Coordination with Recycling Coordinators and Community Stakeholders

During the planning and development of the first MSP, an effort was made to learn from the experience of others directly involved with current material separation efforts in Covanta's contract communities. Among others, Covanta contacted the Massachusetts Recycling Initiative (MRIP) Coordinators for Districts 2 and 3. Those MRIP coordinators have oversight for the recycling activities in all municipalities in the northeast section of Massachusetts including the towns under contract with Covanta for waste disposal. Covanta also met with Mr. Steve Clifford, the Recycling Coordinator for the City of Haverhill, Covanta's host community.

Covanta also developed a survey and conducted detailed telephone interviews with others involved with existing source separation/mercury diversion programs, including Ms. Lynn Rubenstein (Northeast Recycling Council) and Mr. Pat Scanlon (Scanlon Associates). Ms Rubenstein and Mr. Scanlon helped American-Refuel and Wheelabrator, respectively, draft their initial MSP's for mercury diversion in Massachusetts. The background information they provided helped shape Covanta's survey form.

Maintaining this dialogue between Covanta's MSP Program Coordinator and the recycling coordinators of the Covanta contract communities, the MRIP coordinators and the MSP group will help ensure that program implementation will continue to proceed in a coordinated, non-duplicative way.

3. Environmental/Citizen/Health Community Outreach

On June 23, 2000 MDEP provided the MSP group a list of environmental/citizen/health community contacts. Covanta called those groups with the most immediate ties to Covanta communities.

Some suggestions received from this outreach - such as having a Town enact a mercury diversion ordinance and having a Town distribute mercury diversion information along with building permits have recognizable merit and in some cases (thermometer bans in Haverhill and Newburyport) have been successfully implemented. Covanta will continue to explore ways to aid the towns in these efforts.

Other suggestions that will be incorporated as part of Covanta's MSP II include:

- Holding public meetings on the draft MSP II once MDEP has issued its public notice of availability
- Translating some of the planned educational material into Spanish
- Contacting dental and other medical offices as part of the outreach effort for upcoming mercury diversion programs.

4. Market Survey/Analysis by Superior Special Services Inc. (SSSI)

As part of the initial planning process, Covanta hired SSSI, formerly Global Recycling, of Stoughton, Massachusetts to survey businesses and institutions in the sixteen communities contracted to bring waste to its Haverhill facility, to research the most likely sources of mercury containing lamps and other items. Using the Internet as a primary research tool, SSSI developed a list of some 2,457 businesses, hospitals, schools and municipal contacts in the target area. While it was recognized that the general public could well bring in appreciable quantities of mercury through collection programs, a general public outreach was not included in SSSI's market survey/analysis.

This list will continue to be used by Covanta as part of a direct outreach effort for mercury diversion program implementation.

C. Target Sectors

Based on the results of Covanta's research and the SSSI report, it appeared that hospitals, schools, municipalities and large businesses were the most responsive to mercury diversion programs. Of course, beyond those targeted sectors, the general public will continue to be invited to participate in diversion programs, as appropriate.

- 1) The Collection Route program will continue to target large generators of mercury-content waste including municipal buildings, institutions, and larger businesses. For purposes of this program, these larger groups will still be defined as those with more than 10,000 square feet of building space.
- 2) The Mercury Waste Drop-off days Program will continue targeting residents and small businesses.

In each of these two programs, specific activities, designed to achieve the MSP II's overall objectives, are identified and supplemented with timelines and budget estimates. Some of these activities will continue to overlap with each other although the targeted audiences for each are different.

As these activities continue to be implemented, we will assess the effectiveness of each with the intention of modifying, in conjunction with the Massachusetts Department of Environmental Protection, various elements of the outreach initiative, as needed, to make them more effective.

D. Target Areas

Covanta initially began the implementation of a focused mercury product diversion effort in the four target communities of Haverhill, Lawrence, Danvers, and Chelmsford. All four communities targeted in the original MSP, while not completed, have been involved in the initial implementation efforts. These will continue.

The remaining contract communities in the Covanta service area will be incorporated into the program over the next two years. It is anticipated that by the end of the two-year term of the MSP II that all of the Covanta contract municipalities that wish to participate in this program will have had the opportunity to do so. Hopefully, as other municipalities see how well the program has worked elsewhere, it will be easier to negotiate contracts and implement the collection program.

Program participation will continue to be voluntary in all cases. It is anticipated that municipalities will be supportive of the MSP effort and provide in-kind program support such as access to its recycling/public works/Board of Health staff resources and allow appropriate access to its operating facilities (schools, buildings, etc.). If any of the targeted municipalities do not want to participate, the program resources will be utilized elsewhere.

III Planned Activities 07/01/02 – 06/30/04

A. IWSA Outreach/Education Component

The MSP group will continue using the services of the Integrated Waste Services Association (IWSA), its industry group, to achieve economies of scale by collectively developing appropriate educational materials and conducting an effective outreach program to the affected public (businesses, municipalities, households, etc.). Covanta has budgeted \$94,000.00 for the IWSA component during the two-year period from July 1, 2002 through June 30, 2004. See Attachment 1 (**DRAFT**) for details of this component.

Total Cost – 07/01/02 - 06/30/04 is estimated at \$94,000.

B. Covanta's Outreach Component

As described in each of the programs below, outreach/education activities will be conducted under the guidance of the Covanta MSP program coordinator. In addition, Covanta is budgeting an additional \$70,000 for consultant support (i.e., Wastecap and/or others) to help conduct the many outreach/education activities, including site visits to large generators.

Total Cost – 07/01/02 – 06/30/04 is estimated to be \$70,000.

C. Mercury Product Collection Route System For Large Generators

Description of the program

The primary objective is to create and coordinate a collection route system between a mercury waste recycler and the large generators of mercury content bulbs (e.g., those generators with over 10,000 square feet of building space)

- **The goals of this program are:**

1. To subsidize the recycling of as much mercury content waste as Covanta's budget allows. Covanta will continue to monitor and assess results and the program will be modified, as necessary, to collect the maximum amount of mercury content waste possible.
2. Continue to offer a 50% subsidy to businesses that participate, during their first year, to encourage large generators to recycle their mercury product. This subsidy will match one Covanta dollar for every dollar a generator spends to recycle its mercury content products. Subsequently, Covanta will review the subsidy annually and adjust the level, as necessary, with the eventual goal of having the generator paying the full cost of disposal/recycling. Covanta will reimburse all contract municipalities 100% of the costs incurred in recycling mercury-containing products that have been generated by the municipality.

- **Targets of this program are:**

1. Large generators of fluorescent and HID/mercury vapor lamps at establishments over 10,000 square feet of building space, including: municipal buildings, hospitals, schools, colleges, institutions, office parks, industrial parks, manufacturers, and stores.
2. Continue working with the communities of Haverhill, Danvers, Chelmsford, Stoneham and Melrose. Begin implementation, as time and budget allow, in Lawrence, Littleton, Groton, Lynnfield, Ayer, Essex, Middleton, Wakefield and Reading. If any municipality does not wish to participate, the program will be offered to alternative municipalities.
3. Small businesses generators will be allowed to participate, as budget and time allow.

- **Outreach/Education**

The IWSA education/outreach campaign, as discussed above, will continue to be an important component of overall program implementation. The IWSA campaign from 7/02 through 6/04 will consist of advertisements in local newspapers, public service announcement on cable access shows and the print media, radio spot advertisements and Web-based tools.

Complementing this broad campaign, the following additional local initiatives will continue to be conducted under the guidance of the MSP program

coordinator. A recycling consultant (i.e., Wastecap and/or others) will continue to be used to help support these activities.

1. Continue identifying the number of large generators of mercury waste in the selected communities, their names and addresses, and appropriate contacts.
2. Continue to determine, as necessary, how many generators will comprise the large and very large generator components for this project. Covanta currently defines a large generator as one with over 10,000 square feet of building space and a very large generator as one with over 50,000 square feet of building space.
3. Continue holding informational sessions for businesses in communities in which we are working. These sessions will communicate the benefits of the program while obtaining input from the businesses on changes to the program that may better serve their needs.
4. As part of the continuing outreach effort, implemented on a town – by - town basis, attempts will be made to contact all large generators of mercury waste to discuss the handling of mercury-containing waste, the planned collection program, resources available, contacts, and dates and locations of the informational sessions.
5. Site visits will be offered, in communities in which we are working, to very large generators (over 50,000 square feet). This objective will be adjusted, as necessary, depending on the number of generators meeting the size criteria that wish to participate and the time and budget constraints involved. As a consequence, we will endeavor to:
 - a. Ensure that reasonable efforts have been made to enlist these generators in the program.
 - b. Conduct the necessary communication to develop the appropriate and/or senior management contacts.
 - c. Meet with the appropriate facility or environmental managers to encourage participation in the program and offer recommendations on ways to create effective mercury waste collection systems within their organizations.
 - d. Continue to follow-up, as necessary, for effective implementation.
6. Continue business association outreach to maximize the program's communication with the large business community.

7. Continue vigorous outreach to hospitals and larger medical and dental offices, nursing homes and extended - care facilities. There are strong reasons to believe that these locations may contain substantial quantities of mercury. Additionally, Superior Special Services, Inc (SSSI) research confirmed that these sectors might be more open to the effort to address environmental and health concerns of mercury content products and more responsive to active participation in the program.
 - a. Continue to research the above sectors in the Covanta communities.
 - b. Utilize local experts in each of these sectors.
 - c. Continue contacts and involvement with the medical and dental associations in these areas.
 - d. Expand these outreach efforts over time by continuing to conduct site visits or by offering "mercury-waste audits" for these sectors.
 - e. Develop and present informational sessions for each of the following sectors in the Covanta communities:
 - i. Medical clinics and hospitals
 - ii. Dental clinics
8. Continue working with community, government and environmental/activist groups, which have an interest, or are already engaged in, mercury diversion programs to assure coordination, lack of duplication, communication, and support for the Covanta program.
9. Continue working with and speaking to mayors, state representatives, congressmen, educational leaders and other opinion leaders to inform them about Covanta's program and gain their support for it.
- **Measurement & Evaluation**
 1. Continue the development of a system to track and evaluate actual program results and, as needed, make appropriate modifications for future programs to enhance/increase program effectiveness. This will include:
 - a. Assessing the number of contacts with businesses and whether they respond favorably or unfavorably to the initiative.
 - b. Monitoring, where possible, the extent of business participation.

- c. Quantifying waste diversion amounts, where available, such as the number of bulbs collected, and the actual quantity (grams /pounds) of mercury diverted from the waste stream.
- d. Assessing the overall program costs and results.

- **Program Costs**

Covanta remains committed to this portion of the program. Due to the delay in the approval of the MSP, on-site contact with and response from larger generators has been limited. In addition to the five municipalities that we have begun to work in, over the next two years Covanta will begin implementing this portion of the MSP II in nine more municipalities

Total Cost – 07/01/02 – 06/30/04 is estimated at \$20,000.00

D. Mercury Product Collection Events for Residents and Small Businesses

- **Description of the program**

This program will continue to build on existing municipal drop-off collection systems in the Covanta communities. Covanta's goal, by June 30, 2004 is to have made arrangements for up to three mercury product drop-off events per year within each of the Covanta contract communities. These events target the diversion of mercury content products from residents and small businesses. Covanta will continue to work within the communities of Haverhill, Danvers and Chelmsford where collections have been held or are in the process of being scheduled. During the first six months of 2002 Covanta will continue working in the communities of Stoneham, Melrose and Lawrence, including assisting in contract negotiations and beginning collection events. During the MSP II, Covanta will begin to provide this assistance to the remaining contract communities. It is hoped that by June 30, 2004, Covanta will have been successful in introducing this program and holding collection events in all of the contract communities that wish to participate.

- **The goals of this residential/small business program are to:**

1. To subsidize the recycling of as much mercury content waste as Covanta's budget allows. Covanta will continue to monitor and assess results and the program will be modified, as necessary, to collect the maximum amount of mercury content waste possible.
2. Continue to offer a 50% subsidy to businesses that participate, during their first year, to encourage generators to recycle their mercury product. This subsidy will match one Covanta dollar for every dollar a generator spends to recycle its mercury content products. Subsequently, Covanta will review the subsidy annually and adjust the level, as necessary, with the eventual goal of having the generator paying the full cost of disposal/recycling.

- **The targets of this phase of the program are:**

Working with residents and small businesses (<10,000 square feet of building space), Covanta will continue to work in the communities of Haverhill, Danvers, Chelmsford, Lawrence, Melrose and Stoneham. Covanta will begin the introduction and implementation of this program, as time and budget allow, on a town-by-town basis, until all contract municipalities that wish to participate have had the opportunity to do so. If any of the contract municipalities do not wish to participate, the program will be offered to alternate municipalities.

1. If there is a lack of participation, explore the option of opening the events to additional surrounding communities.
2. Participants must register in advance. After each event, re-evaluate the success of the pre-registration program. If necessary, consider the option of not requiring pre-registration .

- **Outreach/Education**

The IWSA campaign, as discussed above, will be an important component of the outreach campaign. The campaign will consist of advertisements in local newspapers, public service announcements, radio spot advertisements and Web-based tools.

Complemented by this broad IWSA campaign, the following additional local initiatives will continue to be conducted under the guidance of the Covanta MSP program coordinator.

1. Continue to review and analyze the information gathered through Covanta's research on waste generators to determine the number of small businesses in these communities, identifying their names and addresses as well as facility contacts, where possible. .
2. Continue efforts with municipalities that facilitate the program's outreach to residents and small businesses.
 - a. Research existing hazardous waste/mercury collection programs.
 - b. Develop initiatives to incorporate small businesses in their programs, if feasible.
 - c. With the assistance of the municipalities and the recycling contractor, designate locations, dates, and staff for these events.
 - d. Determine the availability of municipal personnel and/or environmental group volunteers to assist with these events, if necessary.

3. Pre-registration
 - a. Define how much material can be accepted and set a limit for Covanta's financial contribution to the event.
 - b. Establish a phone line/contact and develop the logistical components of these events.
 - c. Coordinate with IWSA's contractor (website) and/or a local advertiser to publicize this program to residents and small businesses.
4. Covanta will continue to coordinate with municipal officials to develop official notices to residents and small businesses.
5. Covanta will continue to work with municipal officials and offer to incorporate the mercury abatement issue and program into the cities' recycling brochures and/or to include mercury abatement pamphlets with recycling departments' mailings to residents.
6. Continue the placement of notices aimed at residents and small businesses in local newspapers.
7. Continue to utilize the municipalities' existing system for advertising household hazardous waste collection programs.
8. Continue to communicate to the small business community, working with the local Chambers, Rotaries, and other associations.
9. Continue to extend invitations to all small businesses to attend the informational sessions in each community that are being organized for the large businesses.
10. Continue to send press releases, detailing event successes, to newspapers and other media as program feedback to the residents and the business community.
11. Continue contact and communication efforts with community, government, and environmental/activist groups, which have an interest in, or are already engaged in, mercury diversion programs to assure coordination, lack of duplication, and to build local support for the Covanta program.
12. Continue contact with mayors, state representatives, congressmen, educators, and other opinion leaders to inform them about Covanta's program and gain their support for it.

- **Measurement & Evaluation**

1. Continue the development of a system to help determine appropriate modifications for future programs and increase success. Components of this system will include an assessment of:
 - a. The number of contacts with businesses and whether they respond favorably or unfavorably to the initiative.
 - b. The extent of business participation.
 - c. The amount of wastes diverted, where possible, such as the number of bulbs collected, and/or the actual quantity (grams /pounds) of mercury diverted from the waste stream.
 - d. Assess overall program costs and results.

- **Program Costs**

With the delay in the approval of the MSP, this program got off to a late start and has been more difficult and time consuming to implement than originally envisioned. Nonetheless, we have experienced some success and it is hoped that by the end of June 2004, we will have conducted collections in all of the Covanta contract communities that wish to participate.

Total Cost – 07/01/02 – 06/30/04 is estimated at \$120,000.00

E. Thermometer Swaps/Exchanges

- **Description of Program**

Covanta has conducted thermometer swaps/exchanges in five communities (Haverhill, Newburyport, Reading, Lawrence and Danvers) and has three more already scheduled (Groton, Chelmsford and Melrose). Covanta proposes to continue conducting these swaps/exchanges and to begin holding these events in the remaining Covanta communities during the years 2002 and 2003.

Thermometer swaps/exchanges have been requested by a number of Covanta communities and are an extremely effective tool in helping to educate the general public on mercury issues and help remove a potential mercury waste material and health hazard from the home. Covanta will conduct the events in all contract municipalities that wish to participate, in conjunction with the Boards of Health, Recycling Committees or other municipally designated entity. Ideally, dates and/or locations will be chosen that take advantage of other activities occurring in the municipalities that will enhance our exposure and improve participation.

Covanta has purchased digital thermometers and will continue to make them available for distribution in the swaps/exchanges. The supply of thermometers made available to the municipality will be directly proportional to their population. Each municipality will receive a supply of digital thermometers that represents 10% of the households in the community – assuming 2.5 residents per household. In the likely scenario that some communities will not exhaust their

supply of digital thermometers, the excess will be made available, if necessary, to communities that have larger turnouts. If necessary, after consultation with MDEP, Covanta will utilize funds from the MSP II budget to purchase more digital thermometers.

- **The Goals of the Program**

Conduct mercury thermometer swaps/exchanges in each of the Covanta contract communities that wish to participate. This will result in:

1. Removal of a significant source of mercury in the home and, potentially, the wastestream.
2. Improved education and awareness of health issues associated with mercury in the home and the proper end of life management of mercury containing products.

- **Targets of the Program**

The residents of the Covanta contract communities.

- **Program Costs**

Additional money required from 07/01/02 through 06/30/04 to fund the remaining municipal thermometer swaps/exchanges is marginal. The thermometers are already purchased. Advertising cost will be absorbed in the local outreach/advertising portion of the MSP II budget. Time and travel, as well as mercury product disposal from the collections, should not materially affect the MSP II budget.

F. Municipal Reimbursement for Mercury Program Expenses

- **Description of Program**

In order to assist communities with the costs associated with mercury product recycling, Covanta will continue to reimburse any Covanta contract community for the costs incurred in collection, storage and recycling of residentially and/or municipally generated mercury containing products (fluorescent lights, thermostats, thermometers etc.), collected at one-day HHP events or at permanent facilities (either permanent HHP centers or Universal Waste Sheds) or as previously mentioned (Section C).

Further, Covanta will continue to reimburse any contract community the cost of a Universal Waste Shed if they presently do not have a Shed but wish to acquire one.

- **Goals of the Program**

2. Increase the public awareness of mercury, health and environmental issues regarding mercury content products, and the potential impacts of improper disposal.
3. Increased collection of mercury containing products.
4. Creation of a sustainable, highly beneficial, low cost program.
5. Encourage communities with limited resources to participate in the residential collection program through subsidized mercury product collections and/or by supplying them with a Universal Waste Shed and reimbursing the cost of recycling the materials

- **Program Costs**

The program costs are calculated based on the assumption that all communities eligible to participate will do so. Therefore:

- a. 14 communities will be reimbursed for residentially generated mercury product recycling costs at an estimated \$1850 per community, per year.
Total estimated cost of \$52,000.00
- b. 8 communities eligible to receive reimbursement if they choose to purchase a Universal Waste Shed. Cost per shed is approximately \$1250.
Total estimated cost is \$10,000.00

Total cost – 07/01/02 – 06/30/04 is estimated at \$62,000.

G. THERMOSTAT COLLECTIONS

- **Description of Program**

A significant portion of mercury contained in the municipal waste stream is entering through the improper management/disposal of mercury containing thermostats. While programs are available for the recycling and reclamation of these products, participation by the wholesalers, HVAC trades people and consumers are limited, at best.

Poor recruitment efforts by the Thermostat Recycling Corporation, the initial cost of registering for the program and a lack of educational outreach to the HVAC trades people are among the reasons mentioned for the low participation and limited collection numbers.

Covanta proposes to purchase and distribute an initial supply of thermostat collection buckets from the Thermostat Recycling Corporation (TRC). Covanta will purchase an inventory sufficient to supply all the wholesale distributors of thermostats within the Covanta contract municipalities that wish to participate in the TRC program. Covanta will also hold informational meetings for the HVAC industry, utilizing, where possible, their trade associations, designed to gain their support and participation in the thermostat recycling program.

Additionally, as an added incentive to encourage the HVAC trades people to return end-of-life thermostats for recycling, Covanta will authorize cash

“incentives” or cash “discount” certificates, redeemable at the drop-off wholesaler that receives the returned mercury thermostat. This would be done only through wholesalers that wish to participate and will be reviewed periodically to determine the effectiveness of the program and to assess the need to implement changes in the design of the program.

- **Goals of the Program**

- a. Increase the public awareness of mercury, health and environmental issues regarding mercury content products, and the potential impacts of improper disposal.
- b. Increase the number of wholesale outlets participating in the TRC program.
- c. Increased collection of mercury containing thermostats products.
- d. Creation of a sustainable, highly beneficial, low cost program.

- **Program Costs**

Costs associated with this portion of the MSP II are for the initial supply of materials from the TRC (at \$15.00 per bucket) and the planned “incentive” to be paid to the HVAC trades people. Costs associated with the cash “incentive” or “discount, while hard to quantify at this point, should not exceed \$10,000.00 for the two-year term of the MSP II. Costs associated with meetings and distribution of the supplies will be considered part of the outreach/education portion of the MSP II. Disposal and recycling cost are paid by the TRC and from the initial \$15.00 set-up fee. Costs for the initial supply of materials during the 2-year period ending 06-30-04 are not expected to exceed \$4000.00 and total costs associated with the thermostat recovery program should not exceed \$14,000.00.

H. PROGRAM BUDGETS – 07/01/02-06/30/04

MSP Program Budgets for 07/01/02-06/30/04

The MSP II covers the 2-year period of July1, 2002 – June 30, 2004. The cost of implementing the proposed mercury diversion will not exceed the \$0.50 per ton value suggested in MDEP's Guidance. The additional 2-year budget proposed in the MSP II application (\$560,000) is calculated at \$0.50 per ton of waste processed at Covanta-Haverhill during the preceding year (2000), extended out for two years.

Projected Budget – 07/01/02 through 06/30/03

- **Covanta budget for the Collection Route Program**

a. Recycling grants from Covanta:	\$10,000
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- **Covanta budget for small businesses /residents**

1. The budget for the Drop Off Day Collection Program

- | | |
|--|-----------|
| a. Local outreach/advertising costs | \$35,000. |
| b. Mercury Recycler's labor/transportation costs | \$10,000. |
| c. Mercury recycling/disposal grants | \$ 5,000. |
| d. Other event costs (spill kits, training etc.) | \$ 5,000. |
| | |
| 2. Municipal reimbursement program expenses | |
| a. Universal Waste Sheds | \$10,000. |
| b. Municipal Hg recycling expenses | \$26,000. |
| 3. Thermostat recycling program expenses | \$7,000. |

Total Projected MSP II Budget (07/01/02-06/30/03)

IWSA Outreach and Education Program	\$47,000.
MSP Coordinator	\$80,000.
Consultant Outreach Support	\$35,000.
Mercury Collection Route System for Large Generators	\$10,000.
Mercury Coll. Events for Residents and Small Businesses	\$55,000
Municipal Reimb. Program	\$36,000.
Thermostat Recycling Program	\$ 7,000.
Covanta Staff Time/Oversight	\$10,000.
TOTAL	\$280,000.00

Projected Budget – 07/01/03 through 06/30/04

- **Covanta budget for the Collection Route Program**

- | | |
|-----------------------------------|----------|
| a. Recycling grants from Covanta: | \$10,000 |
|-----------------------------------|----------|

- **Covanta budget for small businesses /residents**

- | | |
|---|-----------|
| 2. The budget for the Drop Off Day Collection Program | |
| a. Local outreach/advertising costs | \$35,000. |
| b. Mercury Recycler's labor/transportation costs | \$20,000. |
| c. Mercury recycling/disposal grants | \$ 5,000. |
| d. Other event costs (spill kits, training etc.) | \$ 5,000. |
| | |
| 2. Municipal reimbursement program expenses | |
| a. Universal Waste Sheds | \$N/A |
| b. Municipal Hg recycling expenses | \$26,000. |
| | |
| 3. Thermostat recycling program expenses | \$7,000. |

Total Projected MSP II Budget (07/01/03-06/30/04)

IWSA Outreach and Education Program	\$47,000.
MSP Coordinator	\$80,000.
Consultant Outreach Support	\$35,000.
Mercury Collection Route System for Large Generators	\$10,000.
Mercury Coll. Events for Residents and Small Businesses	\$65,000.
Municipal Reimb. Program	\$26,000.
Thermostat Recycling Program	\$ 7,000.
Covanta Staff Time/Oversight	\$10,000.
TOTAL	\$280,000.00

As the program continues to be implemented, Covanta will assess its effectiveness with the intention of modifying the MSP II, as necessary, in conjunction with the MDEP. While actual expenditures may change somewhat between the categories to make necessary mid-course adjustments that enhance overall program effectiveness, it is anticipated that the relative budget priorities should remain proportionately similar to that presented above.

H. 01/01/02 - 06/30/2002 MSP Program Timeline

In general, the time line for the 07/01/02-6/30/04 MSP II is as follows:

3rd Quarter of 2002	Continue ongoing programs in Danvers, Haverhill, Chelmsford, Lawrence, Melrose and Stoneham; continue planning and conducting thermometer swaps/exchanges; continue work on the Universal Waste Shed procurement program; begin to work with the thermostat Recycling Corporation on thermostat collection program; begin implementation of mercury collection-day program in remaining contract communities; continue site visits to large generators of fluorescent/mercury lighting products.
4th Quarter of 2002	Continue implementation of the mercury collection/recycling programs in the contract communities; schedule collections for spring of 2003; plan and hold thermometer swaps/exchanges in remaining communities; close out Universal Waste Sheds grant program; continue work with TRC; renew outreach efforts in the dental and healthcare fields; continue site visits to large generators of fluorescent/mercury lighting products; hold informational meetings in various communities to explain the success of the program and the goals for the coming year; review data.

1 st Quarter of 2003	Continue working with remaining communities to set-up mercury product collection events; schedule collection events; continue work with the TRC and have all buckets in place; continue outreach efforts to the healthcare and dental facilities; hold informational meetings in various communities to explain the success of the program and the goals for the coming year.
2 nd Quarter of 2003	Continue ongoing program operations and continue to approach and implement collection programs in remaining Covanta contract communities; schedule collection events; schedule thermometer exchanges as time and budget allow; hold informational meetings for the healthcare and dental communities; continue site visits to large generators of fluorescent or other mercury lighting products; review data.
3 rd Quarter of 2003	Continue ongoing program operations and continue to approach and implement collection programs in remaining Covanta contract communities; hold thermometer exchanges as time and budget allow; continue to do outreach and offer educational opportunities for the healthcare and dental communities; begin follow-up work with wholesalers and the TRC; continue site visits to large generators of fluorescent or other mercury lighting products.
4 th Quarter of 2003	Finalize collection contracts in remaining Covanta contract municipalities; schedule collections for spring 2004; continue to work with the dental community in an attempt to create a cost effective, easily implemented recycling program for dental mercury amalgam; hold informational meetings in various communities to explain the success of the program and the goals for the coming year; review data.
1 st Quarter of 2004	Continue to work with the dental community in an attempt to create a cost effective, easily implemented recycling program for dental mercury amalgam; continue to work with the municipalities on mercury product collections; hold informational meetings in various communities to explain the success of the program and the goals for the coming year.
2 nd Quarter of 2004	Continue to work with the dental community in an attempt to create a cost effective, easily implemented recycling program for dental mercury amalgam; continue site visits to large generators of fluorescent or other mercury lighting

products; begin process of reviewing data, writing and submitting the next MSP.

As the program is implemented, Covanta will continuously assess its effectiveness and review the timeline with the intention of adopting modifications, in consultation with the Massachusetts Department of Environmental Protection, as needed.

I. Oversight

A key task of Covanta's MSP coordinator is to monitor the effectiveness of the program's activities and to manage the MSP budget, in close coordination with Covanta management. An accounting of program results and expenditures is provided in the MSP annual report.

J. Measurement and Evaluation

A means of accounting for the materials collected from each diversion program and monies expended for each program will be built into each program implemented. This can include record keeping at each event, tracking of the total amount of material diverted to mercury recycling, number of vehicles, and estimates of the amount of mercury collected, etc. This feedback will allow for program adjustments, fine-tuning and assessment of program effectiveness. These data will be included in the annual reports.

ATTATCHMENT A

DRAFT Integrated Waste Services Association Year 2002 - 2004 / Two Year Program July, 2002 through June, 2004 Massachusetts' Mercury Material Separation Plans

Introduction

The following proposal summarizes activities to be completed by the Integrated Waste Services Association for its member facilities in Massachusetts. Each activity listed below will be implemented between July, 2002 through June, 2004. Specific timelines are provided for each activity, but times are estimates only.

Similarly target populations are provided with each activity, but given the wider reach of mass media, it is probable that people outside the targeted groups will be affected.

As requested by the Massachusetts Department of Environmental Protection and consistent with the prior year MSP, each activity provided herein describes the activity including its education value, the targeted population, an estimated timeline for implementation, estimated cost, and an explanation of where the activity will take place (i.e., the specific medium for the message.) Each activity described herein does not contain a discussion of the evaluation process, which instead is provided more generally because one evaluation tool (the research study) is used for all activities.

Objectives

IWSA's Education Plan for 2001 produced a media campaign "Keep Mercury from Rising" including newspaper and radio advertisements, posters, and a brochure for use by the facilities. The 2002-2004 MSP will take advantage of the prior year's work by continuing to use targeted advertising to reach communities serviced by waste-to-energy facilities. The objectives for 2002-2003 include the following:

- Continue to raise awareness about mercury-containing products in the home and the proper handling and disposal of these products;
- Provide information and promote local recycling events;
- Continue to build an integrated communications program that leverages opportunities for incremental, free media, and works synergistically with the efforts of individual waste-to-energy facilities.

Tactics

IWSA will continue targeted advertising to reach communities serviced by the facilities, as well as implement marketing of print advertisements and radio live-read script to run as public service announcements. The facilities through their Association also proposes to expand web capabilities to provide additional tools for residents in target communities to participate in recycling of mercury-containing products. IWSA also will reach out to the media to generate media coverage of the public education campaign.

IWSA also proposes to continue work with the Boston Aquarium in development of an interactive mercury exhibit, already designed and produced for the Massachusetts' Executive Office of Environmental Affairs, as the basis for a new traveling exhibit for museums throughout the state. Money was appropriated in the six-month, first half 2002 plan. IWSA will continue to provide information and general assistance to the Aquarium. However, no money is appropriated from this two-year plan for the Aquarium project.

Evaluation Tool

The effectiveness of all activities will be measured by a research survey. The 2003 and 2004 surveys will be completed in the first half of the year and compared with earlier polls to better define the audience and the effectiveness of the message and media. The polls will be designed to measure positive changes in public attitudes and behaviors, as well as the receptiveness of the message.

Timeline: The surveys are expected to go into the field in May, shortly after completion of publication of print and airing of radio media.

Activity: The survey questionnaire will time out at between six and eight minutes in length, and the study will consist of 400-500 completes, providing a $\pm 4.39\%$ error rate at a 95% confidence level. The survey will be executed via random digit dialing from electronically generated phone lists. A series of screen questions would produce the necessary targeted universe of respondents.

Cost: $\$20,000 \times 2 = \$40,000$

Details of Activities

1) Advertising

Radio and print advertising will be used. Radio is a targeted medium that provides cost-efficient mass communication and quickly builds frequency of message delivery. Radio added-value programs can provide an opportunity to interact with local communities. Print advertising can be equally effective. Residents look to community newspapers for information on local activities and events. Additionally, these publications are a cost-

efficient way to reach the target. Due to allocation of costs between American Ref-Fuel, Covanta Energy and Wheelabrator Technologies, the advertising will be focused on the Boston market, Wooster area and North Andover / Haverhill region.

Timeline: Three-week radio buy in late April or early May, 2003. Four-day radio buy in late April, or early May, 2004. Print advertising to support radio buys.

Activity: Radio: IWSA proposes to implement a three-week radio buy in late April or early May. The buy would be scheduled to encourage mercury recycling activities and added-value opportunities (e.g., sponsorship of special broadcasts, contests, and free spots stations provide) will be considered in development and negotiation of the buy.

Print: Advertising will include a limited print effort including regional sections of the Boston Globe and local publications that reach the target audience.

Cost: \$ 132,500 in 2002/03 and \$173,500 in 2003/04

2) Public Service Advertisement (PSA) Marketing and Media Outreach

Strong interest in environmental issues among Massachusetts' residents makes the Campaign and the efforts of IWSA/WTE a potentially interesting story for journalists. The Mercury Campaign's advertising message and presentation in both print and radio provides a strong opportunity to gain free exposure of the ads on radio stations and in newspapers. This is evidenced by the unsolicited request that was received from a radio station in the Boston area for a live-read version of the radio spot for use as a PSA. IWSA and its' consultant, Porter Novelli, will market the PSA to gain free media. Media Relations.

Timeline: Ongoing

Activity: Conduct outreach among Northeastern Massachusetts media to generate coverage of the Mercury Recycling Campaign and the positive work of WTE providers. Identify local print and radio media and promote the use of the Mercury Campaign advertisements as PSAs.

Cost: \$15,000 x 2 = \$30,000

3) Web-based Tools

This internet-based community information resource could be readily built, easily updated and is extremely cost-efficient.

Timeline: October, 2002 and October, 2003

Activity: Build upon web-based capabilities for dissemination of information on local recycling events. Potentially, this might include development of a searchable database where residents could easily locate information on their locality.

Cost: \$25,000 in 2002 and \$10,000 in 2003

4) Print Materials

A brochure and poster layout has been developed and is being used by IWSA companies and public officials responsible for disseminating information about mercury recycling. IWSA does not propose to alter the materials, but will make such materials available as needed.

Timeline: Ongoing

Activity: Support facilities as needed with additional print materials.

Cost: \$2,500 x 2 = \$5,000

5) Video

IWSA will produce a short video for use at facilities, public meetings, local events and by public officials. The video will explain the need to recycle mercury-containing products and the efforts undertaken by the state of Massachusetts and waste-to-energy facilities. The video will be suitable for use by high school science classes.

Timeline: October, 2002

Activity: Produce a short five-to-seven minute video illustrating the need to keep mercury containing products out of the waste stream.

Cost: \$25,000 in 2002